

IN THE CLAIMS:

The claims are listed below as follows:

1. (Previously Presented) A semiconductor device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

at least one layer of boro-phospho silicate glass;

at least one layer of germanium boro-phospho silicate glass having at least a portion thereof

contacting at least a portion of said at least one layer of boro-phospho silicate glass;

at least one layer of dielectric material covering at least the side wall surface of said capacitor cell; and

at least one electrode layer deposited over at least a portion of the at least one layer of dielectric material.

2. (Previously Presented) A semiconductor device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

a plurality of layers of boro-phospho silicate glass;

a plurality of layers of germanium boro-phospho silicate glass, at least a portion of at least one layer of said plurality of layers of germanium boro-phospho silicate glass contacting at least a portion of at least one layer of said plurality of layers of boro-phospho silicate glass;

at least one layer of dielectric material covering at least the side wall surface of said capacitor cell; and

at least one electrode layer deposited over at least a portion of the at least one layer of dielectric material.

3. (Previously Presented) A semiconductor device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

a plurality of layers of boro-phospho silicate glass; and

a plurality of layers of germanium boro-phospho silicate glass, each layer of said plurality of layers of germanium boro-phospho silicate glass having at least a portion thereof contacting at least a portion of at least one layer of said plurality of layers of boro-phospho silicate glass.

4. (Previously Presented) A semiconductor memory device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

at least one layer of boro-phospho silicate glass; and

at least one layer of germanium boro-phospho silicate glass having at least a portion thereof contacting at least a portion of said at least one layer of boro-phospho silicate glass.

5. (Previously Presented) A semiconductor memory device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

a plurality of layers of boro-phospho silicate glass; and

a plurality of layers of germanium boro-phospho silicate glass, at least a portion of at least one layer of said plurality of layers of germanium boro-phospho silicate glass contacting at least a portion of at least one layer of said plurality of layers of boro-phospho silicate glass;

at least one layer of dielectric material covering at least the side wall surface of said capacitor cell; and

at least one electrode layer deposited over at least a portion of the at least one layer of dielectric material.

6. (Previously Presented) A semiconductor memory device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

a plurality of layers of boro-phospho silicate glass; and

a plurality of layers of germanium boro-phospho silicate glass, each layer of said plurality of layers of germanium boro-phospho silicate glass having at least a portion thereof contacting at least a portion of at least one layer of said plurality of layers of boro-phospho silicate glass;

at least one layer of dielectric material covering at least the side wall surface of said capacitor cell; and

at least one electrode layer deposited over at least a portion of the at least one layer of dielectric material.

7. (Previously Presented) A semiconductor memory device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

at least one capacitor cell having a portion thereof formed by at least one layer of boro-phospho silicate glass and at least one layer of germanium boro-phospho silicate glass having at least a portion thereof contacting at least a portion of said at least one layer of boro-phospho silicate glass;

at least one layer of dielectric material covering at least the side wall surface of said capacitor cell; and

at least one electrode layer deposited over at least a portion of the at least one layer of dielectric material.

8. (Previously Presented) A semiconductor memory device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

at least one capacitor cell having a portion thereof formed by a plurality of layers of boro-phospho silicate glass and a plurality of layers of germanium boro-phospho silicate glass, at least a portion of at least one layer of said plurality of layers of germanium boro-phospho silicate glass contacting at least a portion of at least one layer of said plurality of layers of boro-phospho silicate glass;

at least one layer of dielectric material covering at least the side wall surface of said capacitor cell; and

at least one electrode layer deposited over at least a portion of the at least one layer of dielectric material.

9. (Previously Presented) A semiconductor memory device having at least one memory cell having a capacitor cell formed of multiple layers of glass, said capacitor cell having a side wall surface, comprising:

at least one capacitor cell having a portion thereof formed by a plurality of layers of boro-phospho silicate glass and a plurality of layers of germanium boro-phospho silicate glass, each layer of germanium boro-phospho silicate glass having at least a portion thereof contacting at least a portion of at least one layer of said plurality of layers of boro-phospho silicate glass;

at least one layer of dielectric material covering at least the side wall surface of said capacitor cell; and

at least one electrode layer deposited over at least a portion of the at least one layer of dielectric material.

10. (Canceled)

11. (Previously Presented) The memory device of claim 9, wherein said at least one dielectric layer comprises one of Si₃N₄, Ta₂O₅, or BST.

12. (Previously Presented) The memory device of claim 9, wherein said conductive layer comprises Si-Ge.

13. (Canceled)